Expanding Understanding of Mental Health Recovery: Effects of Stigma and Working Alliance on the Quality of Life of Persons with Severe Mental Disabilities Receiving Community-Based Services

David C. Kondrat, MSW, Ph.D.
The Ohio State University
Columbus, Ohio

Statement of the research problem

Over the past few decades community mental health treatment has gone through a paradigmatic shift. This paradigm is called recovery in mental health. Rather than merely maintaining persons with severe mental illness (SMD) in the community, this new paradigm seeks the full participation of person with SMD in community life (Kruger, 2000). While hard to define, recovery in mental illness may best be understood from the perspective of those individuals who are engaged in the recovery process (Anthony, et al., 2003). One indicator of recovery that captures consumers' own understanding of their recovery process is consumers' sense of their quality of life (Liberman, & Kopelowicz, 2004).

The recovery movement has challenged practitioners and researchers to develop a deeper understanding of the treatment related factors that facilitate recovery and the environmental factors that stand as barriers to recovery (Loveland et al., 2002). Past research suggests that strong working alliances between mental health case managers and their consumers is one treatment related factor that has a powerful and positive effect on consumers' recovery chances. Conversely, self-stigma, which is a process whereby persons labeled with a mental illness come view themselves as their label, has a detrimental effect on consumers and their recovery chances

Research Background and Research Questions

While initially conceived as a process related factor in psychotherapy, researchers have explored the effects of working alliance in the context of case management and have used Bordin's definition of this concept (Howgego et al., 2003). Bordin (1979) conceptualized the working alliance as consisting of three components: a) the therapist's and client's agreement on the goals of therapy; b) the therapist's and client's agreement on the tasks of therapy; and c) the positive bond that exists between the therapist and the client. He viewed his understanding of the working alliance as being pan-theoretical and

applicable to any change oriented situation. Research has shown that strong working alliances within case management were associated with fewer days hospitalized (Priebe & Gruyters, 1993), greater community living skills (Neile & Rosenheck, 1995), lower reported symptom severity (Neile & Rosenheck, 1995), better medication compliance (Solomon, Draine & Delaney, 1995), fewer days homeless (Chinman, Rosenheck & Lam, 2002), and perceptions of a positive quality of life. (Solomon et al., 1995; Chinman et al., 2002). These studies of the working alliance have shown this treatment process to be a therapeutic vehicle for consumer recovery.

Conversely, the stigma that surrounds severe mental illness represents a barrier to mental health recovery. Modified labeling theory of mental illness provides one view of self-stigma that focuses on the effects of societal views of mental illness internalized by persons with severe mental disabilities (Link et al., 1989). Link and colleagues (1989) argue that individuals learn early in life how society views and treats persons with mental illness. This information becomes relevant to individuals once they become labeled with a mental illness. As a consequence, labeled persons develop a fear of rejection that affects their life chances and psychosocial wellbeing. Link (1987) developed the "devaluation and discrimination scale" to measure this fear of rejection. A number of studies have explored the effects of fear of rejection on consumer life chances and psychosocial wellbeing. For example, greater fear of rejection held by consumers has been associated with lower levels of income (Link, 1987), less medication compliance (Sirey et al., 2001) negative appraisals of self-esteem (Rosenfield, 1997) and greater depressive symptoms (Link, Struening et al., 1997). In addition, greater fear of rejection has been associated with perceptions of negative quality of life (Rosenfield, 1997). No research has explored how fear of rejection held by persons who receive community mental health services and working alliance between consumers and their case managers correlate with subjective quality of life. This research project sought to fill this gap in the literature.

Researchers have studied the joint effects of received treatment and fear of rejection on consumers' perceptions of quality of life (Rosenfield, 1997; Link et al., 2002). Their findings suggest that both fear of rejection and received treatment separately and oppositely relate to consumer perceptions of subjective quality of life. For example, Rosenfield (1997) found that greater fear of rejection negatively associated with consumers' views of their subjective quality of life. At the same time, greater amounts of received treatment positively correlated with subjective quality of life. Based on this past research, one might expect that working alliance and fear of rejection would also have separate and opposite effects on subjective quality of life, with fear of rejection negatively and working alliance positively affecting consumer views of their subjective quality of life.

However, another possible relationship between fear of rejection, working alliance and subjective quality of life might exist. Working alliance is a process-related variable (Solomon & Stanhope, 2004). Strong working alliances between case workers and their consumers are considered to be one of the treatment related processes that make the work of case management effective. Research suggests that strong working alliances mediate the effects of treatment on consumer outcomes, such as satisfaction with treatment (Calsyn et al., 2002). Rather than independently associating with quality of

life, working alliance may serve as a mediator between fear of rejection and subjective quality of life.

Research Questions

The researcher asked two questions about the relationships between working alliance, fear of rejection, and subjective quality of life:

1) To what extent do client perceptions fear of rejection and the working alliance between clients and their primary ACT worker independently associate with client perceptions of subjective quality of life among consumers of ACT and ACT-like services?

2) To what extent do client perceptions of the working alliance between clients and their primary ACT worker mediate the relationship between fear of rejection and client perceptions of subjective quality of life among consumers of ACT and ACT-like services?

Methodology

The researcher employed a cross-sectional research design. Recruitment of research subjects came from one Franklin County based community mental health agency. The researcher used a convenience sample and recruited subjects in the lobby of the mental health agency. Additionally, a research assistant recruited subjects in the lobby of two group homes run by the mental health agency. To be eligible to participate, participants had to be enrolled in one of the case management programs of the mental health agency and had to consent to the interview and data collection process. The researcher and the research assistant conducted face-to-face interviews with study participants to collect information on working alliance, fear of rejection, and subjective quality of life. Control variables (ethnicity, gender, symptom distress, current psychiatric diagnosis, secondary alcohol or drug diagnosis, and current case manager) were gathered from the agency's electronic database and were collected as part of the agencies routine data collection process.

The dependent variable for this study was "subjective quality of life." Subjective quality of life was defined as "…the sense of well-being and satisfaction experienced by people under their current life conditions (Lehman, 1983, p. 143). Subjective quality of life was operationally defined using eight domains from the subjective sections of *Lehman's Quality of Life Interview* (LQOLI) (Lehman, 1988). The eight subscales included: Overall quality of life (2 questions), living situation (6 questions), daily activities (6 questions), family support (4 questions), social relations (6 questions), finances (4 questions), safety (5 questions), and health (6 questions). Responses to each of the questions ranged from one (terrible) to seven (delighted). The research combined all of the subscales into an overall measure of subjective quality of life and calculated an average item score for each participant. For the overall subjective quality of life measure, scores ranged from one to seven. Higher scores indicated perceptions of greater satisfaction with the quality of one's life. For the current study, the internal consistency reliability for this measure was .94.

The major independent variables for this study were "fear of rejection" and "working alliance." "Fear of rejection" was measured using the 12-item *Devaluation and Discrimination* scale (Link, 1987). The devaluation and discrimination scale measures "…expectations as to whether most people will reject an individual with a mental illness as a friend, employee, neighbor, or intimate partner, and whether most people will devalue a person with a mental illness as less trustworthy, intelligent, and competent" (Link & Phelan, 2001, p 373). Responses to each of the items range from one (strongly disagree) to four (strongly agree). The researcher calculated and used the mean item score for this variable, with higher scores indicating greater fear of rejection. Internal consistency reliability for the devaluation and discrimination scale was .83.

The second independent variable was "working alliance, which was measured using the 12-item short form of the *Working Alliance Inventory.* The WAI was developed by Horvath and Greenberg (1998) to measure the three aspects of Bordin's conceptualization of the working alliance and includes the bond, goals and tasks subscales. Each of the three subscales has been found to be related to a larger working alliance variable (Tracy & Kokotvic, 1989). The larger working alliance variable average score was used in the analysis. Higher working alliance scored indicated stronger working alliances. In order to use the WAI in a study of case management and to facilitate the face-to-face interview format, the researcher used a strategy suggested by Neale and Rosenheck (1995), replacing the word "therapy" with "case management" and changing the language from the first person declarative to the second person interrogatory. For each item, responses ranged from one (never) to seven (always). For the current study, the internal consistency reliability for this measure was .95.

Nine other variables were included in the analysis as control variables. Information on these control variables were collected from the agency's electronic records database. The researcher used dummy coding for all categorical variables. "Gender" was used to compare males to females, with male as the reference category. "Race" was used to compare Caucasians, African Americans, and Other races, with Caucasians as the reference category. "Age" was the difference in years between the date of the face-to-face interview and consumers' date of birth. "Primary diagnosis" was defined as the participant's current DSM-IV (American Psychiatric Association, 1994) or DSM-IV TR (American Psychiatric Association, 2000) Axis I diagnosis and was coded as schizophrenia, bipolar disorder, major depression or other diagnosis. Schizophrenia was the reference category. "Co-morbid alcohol/drug disorder" was likewise defined using DSM-IV or DSM-IV TR criteria. For both current diagnosis and co-morbid alcohol/drug disorder, a psychiatrist or psychiatric nurse practitioner made the diagnosis. "Time in treatment" was defined as the number of months between the participant's admission into the case management program and the date of the face-to-face interview. "Hours of treatment over the past 90 days" was defined as the number of hours participants received services over the 90 days preceding the face-to-face interview. The final control variable was "current symptom distress." Current symptom distress was operationally defined using the *symptom distress scale* from the Ohio Department of Mental Health's (2005) Consumer Outcomes System and included 10 questions from the *Symptom Checklist-10* and five questions from the *Symptom Checklist-90*. Questions ask respondents how bothered they were by 15 possible symptoms with possible responses ranging from one (not at all) to five (extremely). Mean items scores were used in the

analysis, and values ranged from one to five, with higher scores indicating greater symptom distress. The internal consistency for the symptom distress scale was .91. The final control variable for this study was "participants' case manager." The identity of participants' case manager was ascertained during the face to face interview by asking participants to name their case manager. Agency records also identified assigned case managers, which in some cases were different than the person identified by the participant. The participant-identified case manager was used in analysis, because this was the case manager participants were instructed to use in their assessment of their working alliance.

The researcher and the assistant completed a total of 175 valid interviews, for an initial sample size of 175. However, only 160 participants were included in the data analysis because of requirements of the statistical method employed. Because consumers were nested within case managers, case managers could serve as potential sources of autocorrelation. The use of multilevel modeling is the appropriate statistical method for nested data structures (Luke, 2002). Specifically, the research used a one-way random effects ANCOVA, which separates the effects of case managers and consumers and which is a form of multilevel modeling (hierarchical linear modeling). The researcher used recommendations of Baron and Kenny (1986) to test for the potential mediating function of the working alliance. According to Baron and Kenny, mediating relationships need to meet three statistical requirements: First, the independent variable, fear of rejection and dependent variable, subjective quality of life, must share variance. Second, the independent variables must share variance with the mediating variable, working alliance. Finally, when both the mediating variable and the independent variable are entered into the model together, the mediating variable must share variance with the dependent variable and the strength of the relationship between the independent variable and the dependent variable must be reduced.

Although there were fairly complete data for all 160 cases, there were some missing data at the item level. Missing data can bias the results of statistical analysis and lead to inaccurate conclusions (Rose & Fraser, 2008). Missing data can serve as a source of measurement bias and can result in distorted relationships between variables (Roth, Switzer & Switzer, 1999). As part of the interview process, participants were able to state "don't know" as their response to any of the questions on the measures of working alliance and fear of rejection. Thus, the measures of the independent and dependent variables did not have complete information. This was also an issue for the symptom distress scale. Further, there were some missing data on race, age, primary diagnosis, co-morbid alcohol/drug disorders, and time in treatment. First, the researcher used a single random imputation to replace missing items for each of the scales used in the analyses (devaluation and discrimination scale, working alliance inventory and symptom distress scale). Using the hypothesized relationships between items in each of the scales, the researcher used completed items in the scales to predict missing items in the scales (Roth et al. 1999). Second, the researcher used multiple imputation (MI), using the Markov Chain Monte Carlo (MCMC) algorithm, to replace the remaining missing data. The researcher used all variables included in the final analysis to develop the imputation model, as suggested by Allison (2002).

Results

About two-thirds of the respondents were male and more than half were African American. Almost 30 percent were diagnosed with schizophrenia, and more than half had a co-morbid alcohol or other drug disorder. On average, participants were almost 43 years old and had received case management from the agency for close to four years. The average item score for the devaluation and discrimination scale was 2.7 (SD = .4), which was above the midpoint (2.5) of the scale and suggested that participants somewhat agreed that the public devalued and discriminated against persons with SMD. The average item score for the working alliance inventory was 5.12 (SD = 1.49), which was above the midpoint (4) of the scale. In general, participants agreed with statements that supported a strong working alliance with their case managers. The average item score for the symptom distress scale was 2.5 (SD = .93). This score for the symptom distress scale was below the midpoint (3) of the scale, which suggests that participants were on average somewhat bothered by their psychiatric symptoms. The average item score for quality of life was 4.3 (SD = 1.64). This score was slightly above the midpoint (4), which suggests that participants were somewhat satisfied with their quality of life.

Research Question 1: independent effects.

The researcher tested two statistical models to answer the first research question. The first model, which was the unconditional model and a one-way random effects ANOVA, tested the effects of case managers on consumers' subjective quality of life. This statistical model yields an intra-class coefficient, which is the proportion of variance in subjective quality of life explained by case managers (the level-2 variable). Case managers explained less than one percent of the variance in subjective quality of life (ICC = .007). The second model, which was the full model and a one-way random effects ANCOVA, added the working alliance and devaluation and discrimination variables as well as the control variables. Both devaluation and discrimination variable (β = -.87, SE = .24, P < .01) and the working alliance variable (β = .15, SE = .05, P < .01) were significant predictors of subjective quality of life. Higher scores on the devaluation and discrimination scale were associated with lower scores on the subjective quality of life variable. Conversely, higher scores on the working alliance inventory were associated with higher subjective quality of life scores. Only one of the control variables was associated with subjective quality of life. Being female (β = -.34, SE = .13, P < .01) was associated with lower subjective quality of life scores than being male.

Research Question 2: mediating effects of working alliance.

In order to test the mediating hypotheses, the researcher first tested the relationship between working alliance and devaluation and discrimination. As with the previous analysis, the researcher began by exploring the unconditional model. Case managers explained roughly 11% (ICC = .108) of the variance in subjective quality of life scores. Devaluation and discrimination (β = -.62, SE =.33, p > .05) scores were unrelated to working alliance scores. One of the control variables was related to working

alliance. Time in treatment (β = -.003, SE = .001, $p < .05$), which was measured in months, was related to working alliance. The longer a person was in treatment the lower was their working alliance score. Because there was no statistically significant relationship between the working alliance and devaluation and discrimination scales, the researcher did not conduct any further analysis for this question.

Utility for social work practice

The research explored two questions to determine the relationships between fear of rejection (one aspect of self-stigma), working alliance between case managers and their clients, and subjective quality of life. The first question explored the independent effects of fear of rejection and working alliance on subjective quality of life. Both fear of rejection and working alliance were related, though oppositely, to subjective quality of life. Greater fear of rejection predicted perceptions of a more negative quality of life. And stronger working alliances predicted perceptions of a more positive quality of life. The researcher explored a second research question that sought to understand the mediating function of working alliance between fear of rejection and subjective quality of life. Because no significant relationship between fear of rejection and working alliance existed, the researcher determined that working alliance does not mediate the relationship between fear of rejection and working alliance. Both of these findings are in line with past research, which has found that treatment and fear of rejection are oppositely and independently associated with quality of life (Rosenfield, 1997; Link et al., 2002). As Rosenfield states: "…treatment stands as an oasis. Within this oasis everything is provided…. But an oasis implies that a larger, harsher environment surrounds it; and treatment programs exist within communities that for the most part are hostile to people with mental illness…." (p. 670).

Three other findings are worth noting. For the model that was developed to answer the first question, gender was related to subjective quality of life. Specifically, females reported lower satisfaction with their quality of life then did males. Past research on correlates of quality of life has likewise found that women have significantly more negative appraisals of their quality of life than men (Lehman, et al., 1995). Another important finding is the statistically negative relationship between length of time in treatment and working alliance. Longer time in treatment was associated less satisfaction with ones quality of life. One possible explanation for this finding is that length of time in treatment may be a sign of greater symptom distress. Post hoc analysis revealed that length of time in treatment was related to symptom distress (β = -.004, SE = .001, $p < .01$). A final relevant finding is the relationship between a person's case manager and their appraisals of their working alliance with their case managers. Case managers explained about 11 percent of the variance in working alliance. Some case managers were better able to develop strong working alliances with their consumers and others were less able.

This study has implications for the study of mental health recovery, and mental health practice and policy. Multiple models of recovery in mental illness exist. Models of mental health recovery need to account for treatment and environmental factors that support recovery in mental illness (Loveland, Randall, Corrigan, 2005). Fear of rejection

(mental illness self-stigma) and working alliance should be added to the list of factors in modeling the recovery process. Because case managers themselves explained part of the variability in working alliance, case managers should also be considered in models of mental health recovery.

At least three practice principles can be distilled from the findings related to fear of rejection. First, the use of psychiatric labels can be both beneficial and detrimental to consumers of services (Link & Cullen, 1990). Psychiatric labels provide an answer to the symptomatic behavior of those individuals living with the label and can facilitate receiving needed psychiatric services and governmental benefits, both positive aspects of the psychiatric labels. However, psychiatric labels can also lead to negative outcomes including negative appraisals of quality of life. Therefore, practitioners are cautioned in applying and using psychiatric labels, and are encouraged to rule out all other potential causes of psychiatric symptoms, such as physical illnesses, before applying psychiatric labels. Second, to counter the fear of rejection, practitioners are encouraged to focus on consumer strengths and capacities rather than the negative and debilitating aspects of the illness. Focusing on the negative aspects of the illness can support the negative stereotypes of mental illness and reinforce fear of rejection. Finally, practitioners at all levels of care are encouraged to intervene to fight the negative stereotypes of mental illness. Practitioners are encourage to develop and researcher anti-stigma programs, including programs at both the individual level (encouraging consumer development of righteous anger) and the societal level (programs that dispel the stigmatizing myths of mental illness).

At least two practice principles can be gleaned from the findings related to working alliance. Drawing on the strength of the working alliance, mental health practitioners are encouraged to pay close attention to the relationships they develop with consumers. As part of developing a strong working alliance with consumers, practitioners are encouraged to work collaboratively with consumers on developing treatment goals and tasks, and developing a clinically appropriate bond. Finally, case management practitioners are encouraged to use approaches to treatment that place a premium on developing strong working alliances, such as strengths based case management (Rapp, 1988).

Findings regarding fear of rejection are also relevant for mental health policy. Related to the negative aspects of fear of rejection, policy practitioners are encouraged to work for changes to the current mental health diagnostic system, which may inadvertently support the negative stereotypes of mental illness. Policy practitioners are encouraged to advocate for these changes to the American Psychiatric Association, which develops the diagnostic system, as well as with state mental health authorities and insurance companies, which use the current diagnostic system to determine eligibility for services. Corrigan (2007) suggests a dimensional diagnostic system that uses symptoms and not labels to diagnose psychiatric illnesses.

Two policy related implications can be taken from the findings about the power of the working alliance. First, policy makers should support the development and implementation of interventions that train psychiatric professionals to develop strong working alliances with consumers. Second, case management is often considered an entry level position within the mental health field and pays accordingly. Case managers

are also the psychiatric professionals who spend them most time with consumers. Practitioners who are trained to develop strong working alliances, such as social workers, often use case management as an entrance into the larger mental health system. Policy makers at the federal, state, local and agency levels need to rethink the importance of case management within the mental health system of care. This includes increasing salary (Sheidow et al, 2007) and changing the culture and climate (Aarons and Sawitzky, 2006) within agencies to support case managers as valued persons within the larger system of care.

References

Aarons, G. A., & Sawitzky, A. C. (2006). Organizational culture and climate and mental health provider attitudes toward evidence-based practice. Psychological Services, 3(1), 61–72

Allison, P.D., (2002). Missing Data. Thousand Oaks, CA: Sage.

American Psychiatric Association. (1994). Diagnostic and statistical manual of mental disorders (4th ed.). Washington, DC: Author.

American Psychiatric Association. (2000). Diagnostic and statistical manual of mental

disorders (4th ed. Text revision) Washington, DC: Author.

Anthony, W., Rogers, E.S., & Farkas, M. (2003). Research on evidence-based practices: Future directions in an era of recovery. Community Mental Health Journal, 39 (2), 101-114.

Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Bordin, E.S. (1979). The generalizability of the psychoanalytic concept of the working alliance. Psychotherapy: Theory, Research, and Practice, 16, 252-260.

Calsyn, R.J. Morse, G.A., Klinkenberg, W.D., Yonker, R.D.,& Trusty, M.L. (2002). Moderators and mediators of client satisfaction in case management programs for clients with severe mental illness. Mental Health Service Research, 4, 267-275.

Chinman, M.J., Rosneheck, R., & Lam, J.A. (2000). The case management relationship and outcomes of homeless persons with serious mental illness. Psychiatric Services, 51, 1142-1147.

Corrigan, P.W. (2007). How clinical diagnosis might exacerbate the stigma of mental illness. Social Work, 52, 31-39.

Horvath, A.O. & Greenberg, L.S. (1989). Development and validation of the working alliance inventory. Journal of Counseling Psychology, 36, 223-233.

Howgego, I.M., Yellowlees, P., Owen, C., Meldrum, L., & Dark F. (2003). The therapeutic alliance: The key to effective patient outcome? A descriptive review of the evidence in community mental health case management. Australian and New Zealand Journal of Psychiatry, 37, 169-183.

Kruger, A. (2000). Schizophrenia: Recovery and hope. Psychiatric Rehabilitation Journal, 24 (1), 29-37.

Lehman, A.F. (1983). The effects of psychiatric symptoms on quality of life assessments among the chronic mentally ill. Evaluation and Program Planning, 6, 143-151.

Lehman, A.F. (1988). A quality of life interview for the chronically mentally ill. Evaluation and Program Planning, 11, 51-62.

Lehman, A. F., Rachuba, L. T., & Postrado, L. T. (1995). Demographic influences on quality of life among persons with chronic mental illnesses. Evaluation and Program Planning, 18(2), 155-164.

Liberman, R.P. & Kopelowicz (2004). Recovery from schizophrenia: A criterion-based approach. In R.O. Ralph & P.W. Corrigan (Eds.). Recovery in Mental Illness: Broadening Our Understanding of Wellness (101-129). Washington: American Psychological Association.

Link, B.G. (1987) Understanding labeling effects in the area of mental disorders: An assessment of the effects of expectation of rejection. American Sociological Review, 52, 96-112.

Link, B. & Cullen, F.T. (1990). The labeling theory of mental disorders: A review of the evidence. In J.R. Greenley. Research in community mental health. Greenwich, Conn.: JAI press.

Link, B.G., Cullen, F.T., Struening, E., Shrout, P.E., & Dohrenwend, B.P. (1989). A modified labeling theory approach to mental disorders: An empirical assessment. American Sociological Review, 54, 400-432.

Link, B.G. & Phelan, J.C. (2001). Conceptualizing Stigma. Annual Review of Sociology, 27, 363-385.

Link, B.G., Struening, E.L., Neese-Todd, S., Asmussen, S., & Phelan, J.C. (2002). On describing and seeking to change the experiences of stigma. Psychiatric Rehabilitation Skills, 6, 201-231.

Link, B.G., Struening, E.L., Rahav, M., Phelan, J.C., & Nuttbrock, L.(1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. Journal of Health and Social Behavior, 38 (2), 177-190.

Loveland, D, Randall, K. W., & Corrigan, P.W. (2005). Research methods for exploring and assessing recovery. In R.O Ralph & P.W. Corrigan (Eds.). Recovery in Mental Illness: Broadening Our Understanding of Wellness. (19-59): American Psychological Association.

Neale, M.S., & Rosenheck, R.A. (1995). Therapeutic alliance and outcome in a VA intensive case management program. Psychiatric Services, 46, 719-721.

Ohio Department of Mental Health (2005). The Ohio mental Health Consumer Outcomes System: Procedural Manual. (7th ed revised). Columbus, OH: Author.

Priebe, S., & Gruyters, T. (1993). The role of the helping alliance in psychiatric community care: A prospective study. The Journal of Nervous and Mental Disease, 181, 552-557.

Rapp, C.A. (1998). The Strengths Model: Case Management with People Suffering from Severe and Persistent Mental Illness. New York: Oxford University Press.

Rose, R.A., & Fraser, M.W. (2008). A simplified framework for using multiple imputation in social work research. Social Work Research, 32 (3), 171-178.

Rosenfield, S. (1997). Labeling mental illness: The effects of received services and perceived stigma on life satisfaction. American Sociological Review, 62, 660-672.

Roth, P.L., Switzer, F.S., & Switzer, D.M. (1999). Missing data in multiple item scales: A Monte Carlo analysis of missing data techniques. Organizational Research Methods, 2, 211-232Sheidow, A. J., Schoenwald, S. K., Wagner, H. R., Allred, C. A., & Burns, B. J. (2007). Predictors of Workforce Turnover in a Transported Treatment Program.

Sirey, J.A., Bruce, M.L., Alexopoulos, G.S., Perlick, D.A., Friedman, S.J., & Meyers, B.S. (2001). Perceived stigma and patient rated severity of illness as predictors of antidepressant drug adherence. Psychiatric Services, 52, 1615 – 1620.

Solomon, P., Draine, J., Delaney, M.A. (1995). The working alliance and consumer case management. Journal of Mental Health Administration, 22, 126-134.

Solomon, P. & Stanhope, V. (2004). Recovery: Expanding the vision of evidence-based practice. Brief Treatment and Crisis Intervention, 4, 311-321.

Tracey, T.J. & Kokotovic, A.M. (1989). Factor structure if the working alliance. Psychological Assessment: A Journal of Counseling and Clinical Psychology, 1, 207-210.